Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A computer-implemented method for providing prediction results to an application system during an interactive session with a user, the method comprising:

receiving a first input value set from the application system;

selecting a first decision tree node by traversing one or more nodes of a decision tree using the first input value set;

using a~~ data mining model~~ the first decision tree node ~~along with~~ and the first input value set to compute a first prediction result;

sending the first prediction result back to the application system;

saving state information generated from the computation of the first prediction result;

receiving a second input value set from the application system;

using the state information to select a second decision tree node by traversing the decision tree beginning at a decision tree node referenced by the state information;

using the ~~data mining model~~ second decision tree node, ~~along with~~ the state information, and the second input value set to compute a second prediction result; and

providing the second prediction result to the application system.

Claim 2 (cancelled)

3. (Currently Amended) The computer-implemented method of claim 1, wherein the second input value set includes both the first input value set and an additional set of input values, and wherein the method comprises using the ~~data mining model~~ decision tree along with the state information and the additional set of input values to compute the second prediction result.

Claim 4 (cancelled)

5. (Previously Amended) The computer-implemented method of claim 1, wherein the first input value set includes at least two input values.

6. (Previously Amended) The computer-implemented method of claim 1, wherein the second input value set includes at least two input values.

7. (Previously Amended) The computer-implemented method of claim 1, wherein the method comprises:

receiving the first input value set from the application system during an interactive session with a customer; and

receiving the second input value set from the application system during the interactive session with the customer.

Claims 8-10 (cancelled)

11. (Currently Amended) The computer-implemented method of claim ~~10~~ 1, wherein the state information includes intermediate probability information.

12. (Original) The computer-implemented method of claim 1, wherein the first and second prediction results each specify a probability of customer churn.

Claim 13 (cancelled)

14. (Currently Amended) A computer system, comprising:

a ~~data mining model~~ decision tree; and

a prediction engine that is operable to:

(a) receive ~~a first~~ an input value set from an application system;

(b) select one or more decision tree nodes by traversing the decision tree using the input value set, unless state information exists;

(c) if state information exists, use the state information to select one or more decision tree nodes by traversing the decision tree beginning from a decision tree node referenced by the state information;

(d) use the one or more selected decision tree nodes, the input value set, and state information, if any exists, to generate a prediction result;

~~use the data mining model along with the first input value to compute a first prediction result;~~

(e) save state information generated from the computation of the ~~first~~ prediction result;

~~receive a second input value from the application system;~~

~~use the data mining model, the state information, the first input value, and the second input value to compute a second prediction result; and~~

(f) provide the ~~second~~ prediction result to the application system.

repeat steps (b) – (f) each time an input value set is received from the application system.

Claims 15-19 (cancelled)

20. (Currently Amended) The computer system of claim ~~19~~ 14, wherein the state information includes intermediate probability information.

21. (Currently Amended) A computer-readable medium having computer-executable instructions contained therein for performing a method, the method comprising:

(a) receiving ~~a fist set of~~ an input ~~values~~ value set from an application system;

~~using a data mining model along with the first set of input values to compute a first prediction result;~~

(b) selecting one or more decision tree nodes by traversing a decision tree using the input value set, unless state information exists;

(c) if state information exists, using the state information to select one or more decision tree nodes by traversing the decision tree beginning from a decision tree node referenced by the state information;

(d) using the one or more selected decision tree nodes, the input value set, and the state information, if any exists, to generate a prediction result;

(e) saving state information generated from the computation of the ~~first~~ prediction result;

~~receiving a second set of input values from the application system;~~

~~using the data mining model along with the state information and the second set of input values to compute a second prediction result; and~~

(f) providing the ~~second~~ prediction result to the application system~~;~~

repeating steps (b) – (f) each time an input value set is received from the application system.

22. (New) A computer-implemented method for providing prediction results to an application system during an interactive session with a user, the method comprising:

(a) receiving an input value set from the application system;

(b) selecting one or more decision tree nodes by traversing a decision tree using the input value set, unless state information exists;

(c) if state information exists, using the state information to select one or more decision tree nodes by traversing the decision tree beginning from a decision tree node referenced by the state information;

(d) using the one or more selected decision tree nodes, the input value set, and state information, if any exists, to generate a prediction result;

(e) saving state information generated from the computation of the prediction result;

(f) providing the prediction result to the application system;

repeating steps (b) – (f) each time an input value set is received from the application system.

23. (New) The method of claim 22, wherein (d) further comprises generating a prediction result using a prior prediction result.

24. (New) The method of claim 22, wherein (a) further comprises receiving an input value set from the application system during an interactive session with a customer.

25. (New) The method of claim 22, wherein the state information includes intermediate probability information.

26. (New) The method of claim 22, wherein the prediction result specifies a probability of customer churn.

27. (New) A computer system for providing prediction results to an application system during an interactive session with a user, wherein the system is programmed to:

(a) receive an input value set from the application system;

(b) select one or more decision tree nodes by traversing a decision tree using the input value set, unless state information exists;

(c) if state information exists, use the state information to select one or more decision tree nodes by traversing the decision tree beginning from a decision tree node referenced by the state information;

(d) use the one or more selected decision tree nodes, the input value set, and state information, if any exists, to generate a prediction result

(e) save state information generated from the computation of the prediction result;

(f) provide the prediction result to the application system;

repeat steps (b) – (f) each time an input value set is received from the application system.

28. (New) The computer system of claim 27, wherein (d) further comprises generating a prediction result using a prior prediction result.

29. (New) The computer system of claim 27, wherein (a) further comprises receiving an input value set from the application system during an interactive session with a customer.

30. (New) The computer system of claim 27, wherein the state information includes intermediate probability information.

31. (New) The computer system of claim 27, wherein the prediction result specifies a probability of customer churn.